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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
SHINICHIRO TAKASHIMA, ET AL. : EXAMINER: THAKUR, VIREN A
SERIAL NO: 10/581,200 :
FILED: JUNE 1, 2006 : GROUP ART UNIT: 1794
FOR: PACKAGE DRINK :

DECLARATION UNDER 37 C.F.R. §1.132

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Now comes Hitoshi Sato who deposes and declares that:

1. I am a graduate of Osaka University and received my masters degree in the 1994, majoring in chemical engineering.
2. I have been employed by the Kao Corporation since 1994. In 1994, I was a researcher involved in the Processing Development Research Laboratories with a responsibility of processing for food products. In 1997, I was a researcher involved in the Processing Development Research Laboratories with a responsibility of processing for bio products. Since 2005 I have been involved in the Processing Development Research Laboratories with a responsibility for development of processing for healthcare food products.
3. The following experiments were conducted by me or under my direct supervision and control.

A green tea extract ("POLYPHENON HG", product of Tokyo Food Techno Co., Ltd.; 200 g) was dispersed in a solvent as indicated in the table, at room temperature under stirring at

250 r/min. After addition of acid clay or activated clay, stirring was continued for about 10 minutes. Subsequently, filtration was conducted through No.2 filter paper. Activated carbon was then added, followed by filtration through No.2 filter paper again. Re-filtration was then conducted through a 0.2- μ m membrane filter. Finally, ion-exchanged water (200 g) was added to the filtrate, ethanol was distilled away, and the concentration of catechins was adjusted with ion-exchanged water to obtain a product. The analytical measurements were as described on pages 37-40 of the specification of the above-identified application. The details of the process and analytical data are reported below:

	Additional Example 1	Additional Example 2	Additional Example 3	Additional Example 4	Additional Example 5
	Ethanol 91%	Ethanol 97%	Acid clay lower limit	Acid clay upper limit	Activated clay
Solid green tea extract (g) (POLYPHENON HG product of Tokyo Food Techno CO., Ltd)	200	200	200	200	200
Ethanol (g)	728	776	760	760	760
Water (g)	72	24	40	40	40
Solvent comprising ethanol and water (g)	800	800	800	800	800
Activated Carbon (g) (KURARAYCOAL GLC product of Kuraray Chemical K.K.)	20	20	20	20	20
Acid Clay (g) (MIZUKA ACE#600, product of Mizusawa Chemical Industries, Ltd.)	100	100	20	200	-
Activated clay (g) (GalleonEarth V2R, product of Mizusawa Chemical Industries, Ltd.)	-	-	-	-	100
Organic solvent / Water (weight ratio)	91/9	97/3	95/5	95/5	95/5
Acid clay or activated clay in solvent (wt%)	12.5%	12.5%	2.5%	25.0%	12.5%
Acid clay or activated clay : activated carbon (weight ratio)	5:1	5:1	1:1	10:1	5:1
Non-polymer catechins / caffeine after treatment (weight ratio)	39.6	45.7	25.4	195.3	25.6

Gallates percentage of non-polymer catechins after treatment (wt %)	52.2	51.2	50.9	51.9	51.5
Gallocatechins percentage of non-polymer catechins after treatment (wt %)	77.3	77.0	76.5	77.6	76.8
Concentration of non-polymer catechins in solid after treatment (wt %)	63	69	68	71	72
Absorbance (-)	0.043	0.030	0.040	0.025	0.035
Assessment of purified products	Caffeine content was lowered, color was good, and stability was visually good.	Caffeine content was lowered, color was good, and stability was visually good.	Caffeine content was lowered, color was good, and stability was visually good.	Caffeine content was lowered, color was good, and stability was visually good.	Caffeine content was lowered, color was good, and stability was visually good.

I declare under penalty of perjury under the laws of the United States of America
that the foregoing is believed to be true and correct. 28 USC 1746(1)

Hitoshi Sato

December, 21, 2010
Date